1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

(material for roofing huts), the Indians are apt to build their villages in the proximity of some grove, or forest, of palms (›palmar‹). As a case in instance, the Choroti village at Tatarenda was situated quite close to a palm grove, and not very far from a largish palm forest. It is of importance that algaroba trees should be growing in the neighbourhood, as the fruit of this tree plays a prominent part in the food arrangements of these Indians.

The huts are of a very primitive character, and are built in the following manner; With a digging-stick (fig. 27) of hard, heavy wood, a succession of holes is dug, or jabbed, in the ground, so as to form a circle with a diameter of 2 metres or upwards. In each of these holes is planted an unlopped, bent-grown branch, thick end downwards, so that the tips of the branch point towards the centre of the circle. By this means a cupola-shaped frame is formed (fig. 26). This frame is covered with a thick layer of palm leaves and grass (figs. 16, 25), unless palm leaves are difficult to obtain, when the hut will be covered with grass only, although huts thatched in this way have less rain resistance. But even the most carefully built Choroti huts are, however, poor enough dwellings which, in any heavy downpour of rain, are unable to keep those inside them from a wetting.

Fig. 18. A man holding a pestle in his hands. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

The huts have one, or even two, entrances, about one metre in height (figs. 16, 25), but huts of the largest size are sometimes provided with several entrances. A sort of porch, constructed of branches and grass, may occasionally be built out from the entrance. When several huts are close together, they may not unfrequently be connected with each other by means of covered passages, or tunnels, built similarly to the huts.

The latter do not contain many utensils. Ranged along the wall, bowls made of gourd shell, a few clay vessels and a wooden mortar, are generally seen. In prettily knitted net bags of spun caraguatá fibre,[1] the Choroti keep all manner of small articles, such as mussel-shell spoons,

[1] Caraguatá, or chahuar (chaguar), Bromelia serra, is, as I have already pointed out, especially common in the Chaco.

wooden sticks for fire-driving, toilet articles, magic rattles, etc.

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Fig. 25. Huts. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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Fig. 26. Hut frames made of tree branches. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

237 and tied with woollen-yarn on to a small stick or cane splinter (fig. 48),
292 for sticking into the fillet of the frontlet. The Indians take very great
302 care of their feather ornaments, and the easily damaged ostrich plumes
[415] (see front-page plate and fig. 49) are kept encased in bamboo. The plume-case reproduced in fig. 50 consists of a piece of bamboo, 50 cm long and 2.5 cm wide. At the upper joint there is a hole, 3.2 cm long and 1.2 cm wide, through which the partition wall has been removed. The bamboo chip cut out in making the hole near the bottom end, is tied over the hole with a thin strip of bast; whereas the upper hole is without such a lid. The lower hole differs from the upper, in that its edges, as well as the edges of the lid, are painted red. I presume that neither of these holes has been made exclusively for the purpose of facilitating the removal of the wall within the joints, but that they have also served to make easier the taking out of the feathers from the case. The painting red of the holes and lid edges has, as I shall show further on, probably been done with magic intent, for the safeguarding of the plumes.

Fig. 44. Frontlet of palm leaf, with chin strap. Choroti. Gran Chaco. Bolivia. 1/2. Rikem. 03. 3. 14.

Fig. 45. »State» frontlet, made of white and pink feathers and down from the pink »spoonbill». Choroti. Gran Chaco. Bolivia. 1/2. Rikem. 03. 3. 15.

The curious object seen in fig. 51 is, it has been stated, meant to be used as an ornament at dances; it is made out of the leaf of a fan palm (Copernicia australis). It seems to me,

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

who was wearing it, for, according to his statement, this ornament originally belonged to an enemy killed by him (Cf. the »scalp lock» on the Indian in fig. 42). 302 727

On the Spaniards' first coming to the Inca kingdom, there was, naturally, in that country much that aroused their great astonishment. Among 101

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Fig. 50. Bamboo casing for keeping ostrich feather head ornaments. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 10. 3. 18.

Fig. 51. Palm leaf object, said to be meant for wearing in a frontlet. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 99.

other things, the strangers found it especially remarkable that Peruvian men of noble birth were wearing immense, often metal-mounted wooden discs, or hanging ornaments, in their pierced ear-lobes, which were distended to a monstrous size. This custom occasioned the Spaniards to give the Peruvian nobles the nickname of »orejones» — which might be

304 pattern with the cactus needles, or bone awl, until beads of blood appear, when the soot-mingled saliva is rubbed into the punctures. After healing, the tattoo marks assume a bluish colour.

302 At dances, lovers' meetings, and other important occasions, men and women paint their faces (figs. 62, 67—70 and 74—76). Face-painting may be done either in red (figs. 67—68 and 74—76) or in black (fig.

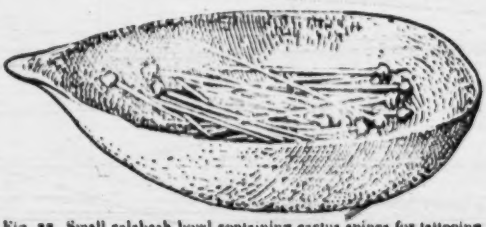

Fig. 77. Small calabash bowl containing cactus spines for tattooing. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 87.

Fig. 78. Red paint, ready prepared for face-painting. This lump of paint, which is wrapped in a sheath of palm leaf, may possibly have reached the Choroti by barter from the Chiriguano. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 104.

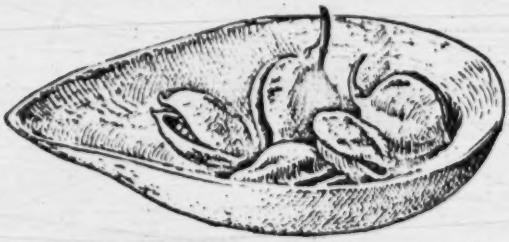

Fig. 79. Small calabash bowl containing fruits of Bixa orellana. From the seeds of these fruits colour is prepared for face-painting. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 103.

Fig. 80. Miniature bowl of wood, holding colour seeds. The bowl and the seeds have possibly been obtained by the Choroti through barter with the Chiriguano. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 180.

69), or in both red and black (fig. 70). Painting the face in red is commonest. The black paint consists of soot and saliva, whilst the red colour (fig. 78) is prepared from seeds of Bixa Orellana (fig. 79). These seeds are usually obtained by barter from the Chiriguano, and are carefully kept by the Choroti in small calabashes. I have also seen miniature wooden bowls (fig. 80) used as receptacles for these colouring seeds after they have been taken out of the follicle.[1] The soot is usually kept in a

[1] Owing to a mistake having occurred as to the identity of seeds, in my first treatise on the Choroti I have erroneously stated that the red paint used in face-painting is made from the seeds of Caesalpina melanocarpa.

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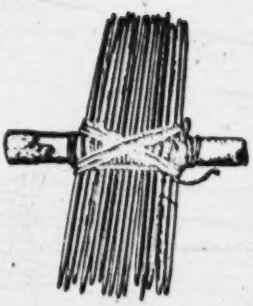

Fig. 85. Split-cane comb. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 74.

Fig. 86. Wooden comb, carved in one piece. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 70.

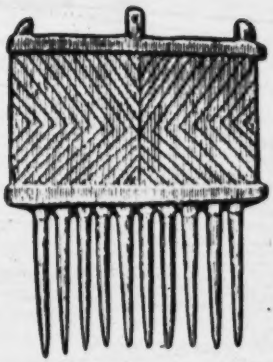

Fig. 87. Wooden comb, carved in one piece; the handle carved on both sides into angular ornament. Choroti. (This comb may possibly have been made among the Churiguano.) Gran Chaco. Bolivia. 2/3. Riksm. 10. 3. 28.

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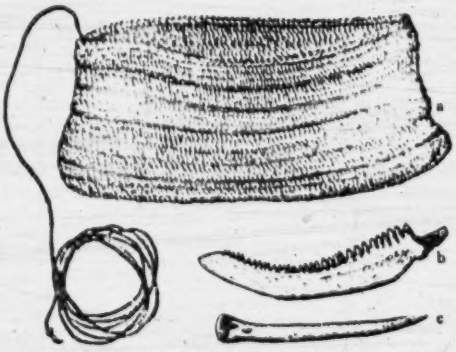

Fig. 88. Miniature bag (a) of undyed (greyish-white), brown, yellow, and black caraguatá fibre. When the author obtained the bag, it contained a stamp for face-painting (b) and a small bone awl for tattooing and blood-letting (c). Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 101.

older cultural element. The split-cane comb in fig. 85 consists of a piece of cane, about 7.2 cm long, into which a split has been made from one end, so that only 2 cm of the other end of the cane are left intact. The insides of the two legs forming this crotch have been pared down so that the space between the legs of the crotch equals the thickness of the comb teeth at their middle, i. e., in this case about 4 mm. In the fork of this crotch the teeth, 1 to 2 mm thick, have been placed and secured by tying, with their flat sides together. This class of Choroti combs are generally of a construction differing somewhat from the one described, in that the cane has not been split from one of the ends in order to afford room for the teeth, but, instead, there is usually in the middle of it a recess, into which the teeth are fixed in the way I have described.

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skinning or gutting, and are usually eaten with entrails, excrement and all. When the Choroti eat the entrails of larger animals, they do not first rinse them out, but are, at best, content with squeezing out the contents. Nordenskiöld has seen them eating intestinal contents as spinach together with the meat.[1] Fish is grilled, either by being laid on glowing embers, or tied between two sticks stuck into the ground by the fireplace.

As servers for food are used bowls of clay, wood, or calabash shell, or merely large, fresh leaves.

In foregoing chapters I have given the names of such plants, wild as well as cultivated, as are of importance in the food supply of the Choroti. Vegetables are eaten raw, boiled, roasted or dried. The Choroti, like other Chaco tribes, eat the fruits of the algaroba, and other similar fruits, in the following, rather original way. The raw fruits are put into a large wooden mortar (fig. 122), and there pounded up. The pulp is put into a calabash bowl, where it is stirred up with water, and the dish is then ready for eating. Those who are about to partake, squat down around the bowl, and each individual helps himself with his bare hand to the pulpy mass, which he puts into his mouth, chews and sucks, whereupon he spits his mouthful of mush back into the bowl. Another mouthful is taken, and in due course spat out, and so on. This is repeated by all the participants of the meal until all the sweet and nutritious components of the mess have been used up. What a bowl of »fruit cheese» is like, after half-a-dozen Indians have been eating and spitting for a while, the reader may possibly picture to himself, by the aid of his imagination.

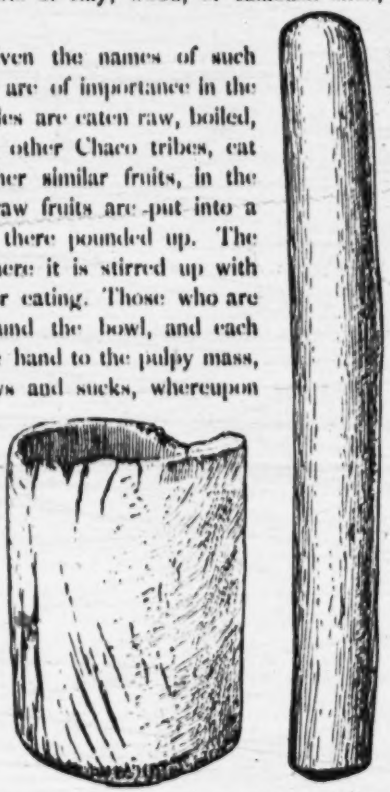

Fig. 122. Mortar and pestle of hard wood, the latter consisting of palo santo. Choroti, Gran Chaco, Bolivia. 1/6. Riksm. 03. 3. 135 and 03. 3. 137.

In another work of mine I have said that the Choroti eat the *fruits*

[1] Nordenskiöld (18), p. 53.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

or large calabashes, to ferment. One certain night, I was present at a 273
beer-fermenting in a Choroti village. Proceedings commenced by two men sitting in the men's club house on either side of the fire, singing, with their backs to each other, and beating time with calabash rattles. After a while they continued this round about the hide in which the brew was fermenting. A man and a youth were singing, accompanied by a rattle, turning their faces up to the moon. Elsewhere, here and there, other men were bawling and plying rattles. Then the earthenware drum was brought

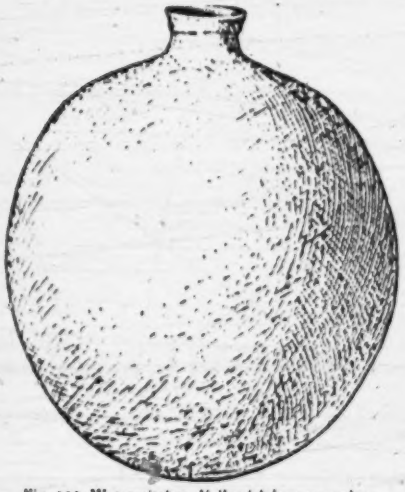

Fig. 123. Water pitcher. Yellowish brown earthenware. Choroti. Gran Chaco. Bolivia. 1/4. Riksm. 03. 3. 145.

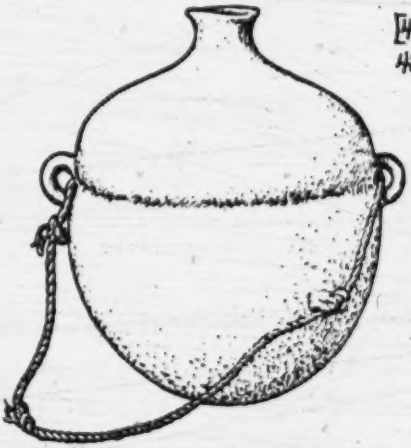

Fig. 124. Water pitcher with carrying cord of caraguatá. Reddish-brown earthenware. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 146.

out, and placed on a ring formed of straw. Monotonous drum beats thereupon gave accompaniment to the singing. This stopped about midnight, and there was a rush down to the river where some fishing was done, with a fairly good result. The fish was then grilled and eaten. This night supper having been satisfactorily discussed, singing was resumed and went on, supported by one drum and four rattles. The songs seemed to me to consist of nothing but refrains, something like: 'huh, huh, huh, huh, huh, lah eh lah, huh, lah eh lah, . . . huh, huh, huh, lah eh lah'. The singing was at first low, then suddenly rising in loudness, then again subsiding low. Many were raucously bellowing in unison. When one lot

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273 of singers were tired out, others took their turn. In the morning there was some more fishing, and for breakfast was drunk the tusca beer that had been made with so much trouble, after having been strained through a dirty bag, and served up in calabash bowls. The Choroti believe that by singing they hasten the fermentation of the beer.

The tusca beer is of an acidulous, refreshing taste, but has a sickly smell.

The fruits of the chañar are boiled, whereupon the mixture is allowed to ferment.

The fruits of the algaroba are ground, and warmed up in water, then, like the foregoing, the brew is left to ferment in huge, filthy, calabashes, or in very large troughs of the wood of the bottle-tree.[1] I have seen the Ashluslay preparing yeast by chewing part of the ground algaroba, and then spitting it out into the rest. Chañar beer is of a sour-sweet, somewhat nauseous, taste; algaroba beer is good. The latter has a sweet, somewhat astringent, taste. When long fermented, it is highly intoxicating. Maize beer I have seen brewed here. It is especially well known to a great many tribes in South America. It has a pleasant and refreshing taste.»[2]

271 When, during their wanderings, the Indians of the Chaco do not come across any rivers, lagoons or wells, and thus find themselves threatened by a lack of water, they collect the water that, after rain, has gathered at the base of the leaves of the caraguatá plant, where it will keep fresh for many weeks.[3]

271 [415] 482 The Choroti fetch and keep water in large, oval, sometimes spherical, earthenware vessels. When these vessels, like the one reproduced in fig. 123, are without handles, they are carried on the back by means of a caraguata net, the carrying cord of which is either placed across the forehead or across the chest. Water pitchers are, however, as a rule provided with two vertically placed handles, and also a shallow groove which runs through the latter, the whole being designed to give a hold to the carrying cord (see fig. 124). The cord is rested across the forehead

[1] Chorisia insignis.

[2] Nordenskiöld (13), pp. 89—91.

[3] Professor von den Steinen writes of the Chaco Indians of northern Chaco that they collect water from the caraguatá »in denen sich auf dem Grunde des Blätterkranzes das Regenwasser ansammelt und Monate lang verhältnismässig frisch erhält» von den Steinen (1), p. 336. See also Grubb (1), pp. 95 and 96.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

or chest of the water carrier.[1] When the pitcher has been filled with water, its mouth is closed with a stopper of grass or leaves.

The cooking pots, which consist of burnt clay (figs. 125 and 126), are also used for roasting various vegetables. Pots of this kind from the Choroti are sometimes given wart-like decorations. These are either placed in rows some distance apart from each other (fig. 125) or in rows close together (fig. 126). This manner of ornamenting clay pots is of extreme antiquity in the New World, and occurs on grave finds right up through North America.[2] The little protuberances on the pot in fig. 125 have been produced in a different way to those on the handleless pot in fig. 126. On the case of the former, they consist of small clay pellets which have been stuck on the pot before burning, whilst the protuberances on the latter probably have been pressed up out of the wet clay by the potters fingers.

Fig. 125. Cooking and roasting pot of earthenware burnt black. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 150.

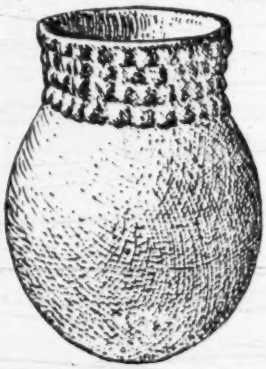

Fig. 126. Cooking and roasting pot of earthenware burnt black. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 10. 3. 54.

All pottery is made by women. The clay is mixed with powdered potsherds, then well kneaded and formed with the hands into rolls, as thick as a finger, with which the pot is built up.[3] When this has been completed as to its shape, its surface is polished by means of a mussel shell or a

[1] Water-drawing and carrying is exclusively a work for women.

[2] See, for example, Holmes (1), pl. XI, fig. g, and Moore (3), fig. 42.

[3] Cf. figs. 217 and p. 214. On the subject of Indian pottery-making, see for example Holmes (1), and Nordenskiöld (10).

323 smooth wooden stick, and, if desired, the above mentioned wart-like
[531] ornaments are then put on. Painted clay vessels are not found among the Choroti.

● 415 For holding water, beer, and other fluids, the Choroti use not only
531 clay vessels but also calabash bottles. Small calabash bottles (figs. 127 and 128) are used for keeping toilet articles, such as colour seeds, beads, and other things. Such articles are also kept in boxes of calabash (fig. 129). Flour is kept in large calabash boxes (fig. 130). Of calabash shell are also made bowls or dippers (fig. 131), and spoons (fig. 132).

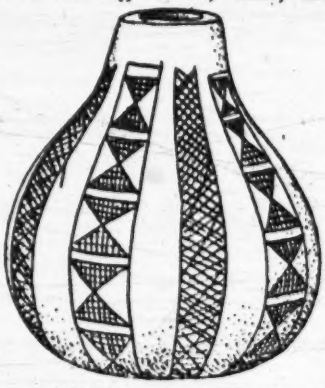

Fig. 127. Calabash bottle with incised ornament. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 172.

Fig. 128. Calabash bottle inlaid with turquoise coloured glass beads. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 175.

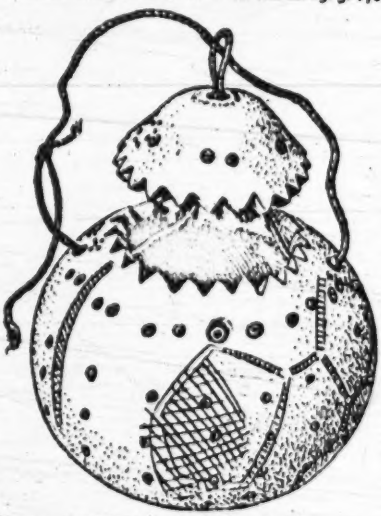

Fig. 129. Calabash box, inlaid with glass beads, and with carved ornament. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 67.

Fig. 130. Calabash box with carved ornament. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 176.

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Bottles, boxes, bowls, dippers and spoons, of calabash, are often ornamented in some way or other. Small calabashes (figs. 128 and 129) for toilet articles are inlaid with beads, and on the latter there is also carved ornamentation. The bottle (fig. 127) and the box (fig. 130) have likewise been decorated by carving, but the ornamentation on the dipper (fig. 131) has been produced by burning. Occasionally ornamentation of calabashes has been effected both by carving and burning, an example of such composite technique being the spoon in fig. 132. The ornamentation is sometimes regularly arranged, figs. 127 and 132, but it often seems to have been placed without any plan whatever, as in figs. 129 and 131. According to investigations by Nordenskiöld and Karsten, the latter kind of ornamentation may not infrequently possess an especial significance; representations of human beings, animals, roads, fields, forests, and so on,[1] and its purpose is probably not only decorative but also magical.[2]

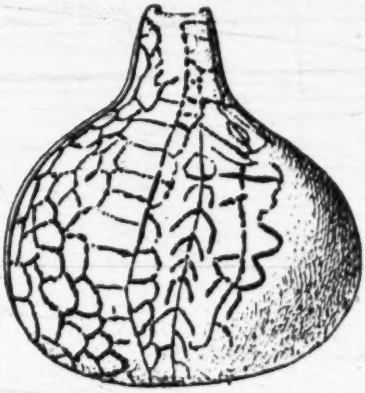

Fig. 131. Dipper, of calabash, with ornament burnt in. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 164.

Fig. 132. Ladle, of calabash, with ornament both carved and burnt in. In the figure, the latter are shaded. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 166.

Many primitive peoples, in the Old World as in the New, use mussel-shells for spoons. The Choroti have spoons consisting of one of the halves

[1] Cf. Nordenskiöld (13), figs. 62 and 63.
[2] Karsten (3), p. 179.

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415 of a river mussel (fig. 133). These mussel shell spoons are seldom as large as the specimen here reproduced, which has a length of 14 cm.

I have seen neither food dishes nor spoons, made of wood, among the Choroti, but nowadays, at least, such are used by them.[1]

285 415 Among the Choroti I saw only one single piece of basket work (fig. 134). It consists of a small basket of the same shape as a kind of pot, which is common in the Chaco (see cooking pot in fig. 192), and it is probably only a direct copy, made in sport, of a clay pot; otherwise, basketry is unknown to the Choroti, and it is therefore probable that the object in question has either found its way to these Indians from the Chiriguano, or that some Choroti, having seen basket-weaving in a Chiriguano village at some passing visit, subsequently has attempted to produce, some similar work himself. It should be noted that the weaving technique in the basket here reproduced is the same as the one used by the Chiriguano.

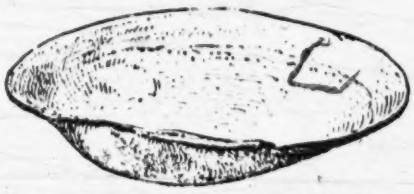

Fig. 133. Spoon, consisting of a mussel shell. Choroti. Gran Chaco, Bolivia. 1/2. Riksm. 03. 3. 107.

[71]

286 415 The Choroti keep no inconsiderable part of their goods and chattels in large, nearly oval, knitted bags of caraguatá yarn (figs. 135 and 136). These bags are especially useful when the tribe is journeying or migrating. They are carried by the women in such a way that the tape or string within the ends of the bag is placed across the forehead, whilst the bag rests against the carrier's back. The carrying cord over the forehead keeps the bag from slipping down the back. For carrying water pitchers and other vessels of earthenware or calabash, the Choroti use carrying nets. On page 118 I have described the way in which these are used.

[285] [482]

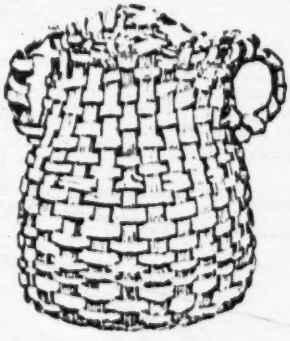

Fig. 134. Basket, Choloni(?). Gran Chaco, Bolivia. 1/2. Riksm. 03. 3. 144.

For everyday use the men have a kind of

[1] Nordenskiöld (11), pp. 86—90.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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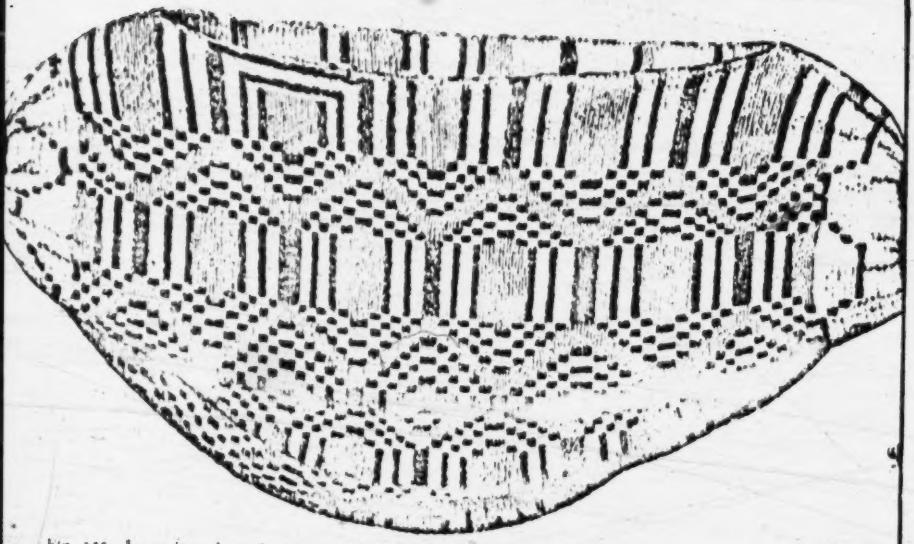

Fig. 135. Large bag, knitted of brown, black and yellowish white (natural colour) caraguatá fibre yarn. Choroti. Gran Chaco, Bolivia. $^{9}/_{6}$. Riksm. 03. 3. 134.

smaller caraguatá bags of the shape seen in figs. 137 and 138. These bags are carried by a string or narrow strap laid over the shoulder (see the man with a bow, fig. 96) or tied to the belt, and in them are kept a variety of articles that the Choroti men always like to have about them, such as fire-drilling sticks, tinder boxes, awls for blood-letting, colours for painting of the face, etc.

[482]

The caraguatá yarn is spun, without the aid of a spindle, only by twisting the fibres (of Bromelia serra) against the thigh with the flat of the hand. Some of the yarn is dyed with vegetable dyestuffs in order to produce variegated patterns in the knitting (see figs. 135—139). For the knitting, eyed needles of hard wood (fig. 140) are used. Similar needles of wood or bone are also used for sewing. Among the Choroti I have seen men's bags which had been knitted of woollen-yarn with long cactus spines, used as knitting needles (fig. 141). The woollen-yarn bag here reproduced is ornamented with red, brown and grey

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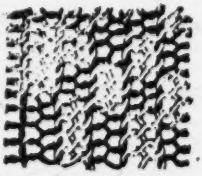

Fig. 136. Enlargement of the knitting of the bag in fig. 135.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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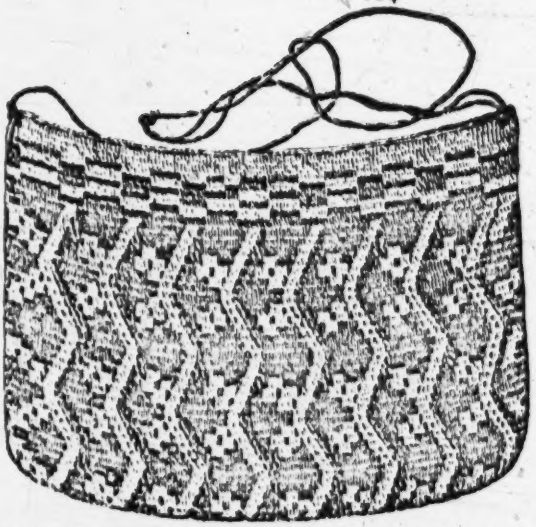

Fig. 137. Bag, knitted of brown, black and yellowish-white (natural colour) caraguata fibre yarn. Carrying strap of rawhide, twined together. Choroti. Gran Chaco. Bolivia. 1/3. Rikem. 03. 3. 110.

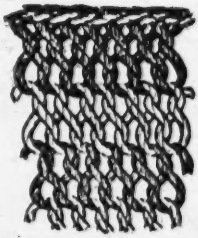

Fig. 139. Enlargement of the knitting of the bag in fig. 138. Twice enlarged.

Fig. 138. Bag, knitted of brown, black and yellowish white (natural colour) caraguata fibre yarn. Choroti, Gran Chaco. Bolivia. 1/3. Rikem. 03. 3. 133.

Fig. 140. Knitting needle, of wood. Choroti. Gran Chaco. Bolivia. 1/3. Rikem. 03. 3. 143 b.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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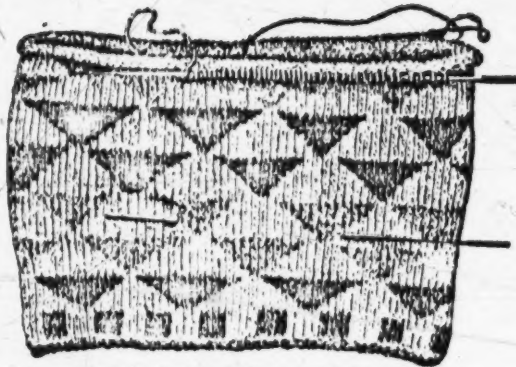

Fig. 141. Bag (unfinished), knitted of woollen yarn, with two cactus spines used as knitting needles. The pattern consists of red, brown and grey triangles and squares on a greyish white ground. Choroti, Gran Chaco, Bolivia. 1/2. Riksm. 03. 3. 143.

Fig. 142. Distaff, with wooden spindle and a spherical whorl consisting of the hard shell of a fruit. Left-spun cotton yarn is wound on the spindle, near its middle. Choroti, Gran Chaco, Bolivia. 1/3. Riksm. 10. 3. 51.

Fig. 143. Distaff, with wooden spindle, and a plano-convex whorl of bone. Choroti, Gran Chaco, Bolivia. 1/3. Riksm. 03. 3. 140.

triangles and squares on greyish-white ground. It is probable that the Choroti have learnt the art of knitting through having been in contact with more cultured tribes.

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[231]

From their herds of sheep the Choroti obtain all the wool they need for manufacturing mantles, loin cloths, ponchos, fillets, bags, etc. Wool, as well as cotton, is spun with distaffs of the Bakairi type[1] (figs. 142 and 143). The spindles of the distaffs are of wood, with a small knob at the top end for fixing the wool. The spindle is always thinnest at the upper end, and increases in thickness downwards, attaining its greatest thickness not far from its bottom end. The spindle whorls consist of various materials, such as fruit rinds, bone, earthenware, etc. I have even obtained a Choroti distaff with a stone whorl (Riksm. 10. 3. 50), although this is a material which is extremely rare on the

[1] For South American spinning implements and their classification see Frisdin and Nordenskiöld (1). 10*. — *v. Roisn.* II.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6
Mataco S17

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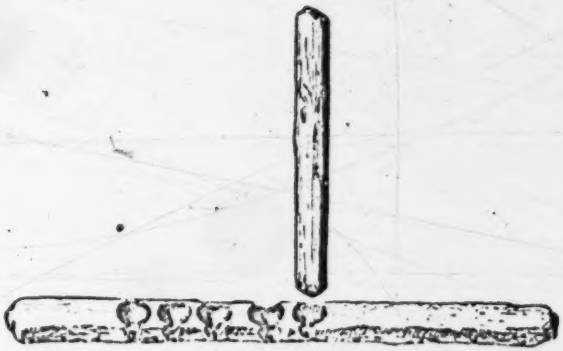

Fig. 148. Fire drilling implement, consisting of two wooden sticks. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 193.

For scraping and polishing wooden objects, pieces of mussel-shell are used. Formerly, when the Choroti could not obtain iron, all woodwork was produced exclusively by means of fire and mussel-shells. In shaping a piece of wood, the parts that were to come away were burnt in the fire, and the charred parts then scraped off with a sharp-edged piece of mussel-shell.

Nordenskiöld mentions that the Choroti, in the same way as other Chaco tribes, use saws made of hard wood with which they, among other things, saw off the stem and leaves of the, to the Indians so important, caraguatá plant,[1] after having grubbed it up with a fork-like digging stick.

Awls for working purposes are made of bone (fig. 147). Bone awls are also used for tattooing (see p. 75, 78), magical blood-letting (see pp. 63 and 64), and as weapons of offence (see p. 101).

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C
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C
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M
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237]

Fig. 149. Stems of a liana (Asclepiadaceæ), which form the material of which fire-drilling implements of the Choroti generally are made. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 196.

Like other Chaco tribes, the Choroti produce fire by drilling. Their fire-kindling implement consists of two round-sectioned, dry sticks of wood (fig 148), usually obtained from a species of liana (of the Asclepiadaceæ), fig. 149. One stick (the female one), which is thicker, and usually longer, than the other one (the male stick), has one or more bowl-shaped indentations, at

Fig. 150. Tail of armadillo, used as a tinder box. Mataco. Gran Chaco. Argentina. Exactly similar tinder boxes are used by the Choroti. 2/3. Riksm. 03. 3. 572.

[1] Nordenskiöld (11), pp. 65 and 66, also (13), pp. 110 and 111.

372 at the top, and by thus taking it by turns, the male stick is kept in continuous motion, until the wood powder begins to glow.

It is the work of the men to kindle the fire by drilling, but the women are charged with the responsibility of seeing that it does not go out unnecessarily. In order to keep cinders glowing during the night, or at other times when a flame on the hearth is not required, the women place on top of the fire dry, decayed tree stumps, which they cover with ashes, by means of which the stumps keep smouldering for a very long time. It is then easy, when required, to produce a flame by blowing [415] on, or fanning, the cinders. The fire-fan consists of feathers. Fig. 152 shows a young Choroti girl whilst carrying out her vestal duty of preserving a fire.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 152. A Choroti girl who has put decayed tree stumps on top of the fire in order to preserve it until again needed. Choroti. Gran Chaco. Bolivia. Photo. E. v. K.

[p. 134 is blank]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

of that kind are especially apt to make it easy for the spirits to acquire possession of human beings. When a woman paints her face, that fact may, therefore, indirectly constitute a sign that she desires sexual intercourse, although the painting may perhaps have been done for the magical reasons above indicated.[1]

On page 58 I have remarked that on a reed-casing for keeping ostrich plumes the holes and the edges of the lids were painted red. This red-painting cannot very well be of a decorative character, seeing that there is not much of the paint visible when the lid is closed. According to my opinion, it is very probable that the paint has been applied in order to protect the delicate ostrich plumes contained in the casing from sustaining harm from evil spirits. The fact is that there is, among the Indians, a wide-spread belief that decay and similar processes are caused by evil spirits, on account of which it has been customary among certain Indian tribes to paint not only corpses but also grave equipment with red paint for the purpose of preservation against decay. And we also possess positive evidence that among certain Indian tribes the custom prevails of providing the property of the living with a similar magically protective, painting.

When through Karsten's paper on Indian conceptions as to the significance of painting,[2] my attention had been drawn to these circumstances, I took to examining most of the objects I had found as grave furniture at Quebrada del Toro and Puna de Jujuy (Argentina) in order to ascertain whether any of these objects had been painted before being put with the dead.[3] This examination revealed that nine wooden objects seemed to be painted all over with red paint, but as I, owing to the objects having lain such a long time in the ground, was unable with certainty to decide whether these objects really were painted, or whether their red colour was due to the natural colour of the wood, I had the objects in question submitted to chemical examination. It was then established that the objects were painted, and that the paint consisted of ferrix oxide, almost pure,[4] (so therefore not uruku, which is prepared from Bixa Orellana).

[1] Cf. Karsten (4), Chap. I.

[2] Karsten (4), Chap. I.

[3] As a result of the fact that all the ethnographical and archæological collections of the Riksmuseum are stored in most unsuitable premises, it has not been possible to find all of the objects.

[4] Analytical report No. 211954, Chemico Technical Bureau (Kemiskt Tekniska Byrån).

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

I cannot tell, but from an analogous carving from the Lengua it is very probable that they represent spirits.[1]

Most rattles contain seeds, and in many of them are also found a large number of metal fragments (see synoptical table below). The latter as a rule consist of small, square pieces of tin plate, for the most part with a side of from 5 to 15 millimetres. Bits of glass do not unfrequently occur in the rattles, although never in any great numbers; generally only a few bits of glass are found in any one rattle. In the Chaco, bits of glass are naturally extremely rare. In the rattle reproduced in fig. 181 were only found bits of tin plate and one cactus spine. Although this rattle belongs to the handle-hole type (see pp. 148, 149), it nevertheless has a hole in the bottom, with a plug of the kind I have described in connexion with the magic rattle, fig. 170. Professor Robert Fries has been kind enough to examine the different kinds of seeds that I have found in magic rattles, as well as in the bag mentioned below, and he then determined the presence of a species of Canna, a leguminous plant, a species of Convolvulaceæ, one of Sapotaceæ and a Smilax. Several kinds of seeds could not be identified from lack of material to compare them with.

Synoptic table of contents in magic rattles from the Choroti.

Riksm. coll. 03. 3.

No. of rattle	Type of rattle	Contents
386	Plugged hole through bottom. Carrying cord (fig. 170).	Seeds (Smilax and undetermined), 1 dark blue piece of glass.
385	Ditto.	Seeds (Smilax and Canna), 2 bits of zinc plate, 1 spiral spring of iron, 2 cactus spines.
390	Plugged hole through top of handle, ditto through bottom. No carrying cord. (fig. 181)	Nine bits of plate iron, one cactus spine.
384	Like foregoing, but no hole at the bottom.	Seeds (Canna and undetermined), 2 bits of plate iron.
387	Ditto.	Seeds (Smilax, a leguminous plant, and of unknown species), 34 black glass beads, 1 blue glass bead and 4 yellowish-green bits of glass.
388	Ditto.	Seeds (Convolvulaceæ and unknown), 1 piece of zinc plate, and 1 uncoloured piece of glass.

From a Choroti I obtained by barter a small bag of red cloth (Riksm. 03. 3. 391), abundantly wound round with caraguatá string, in which he said he used to keep the things that he put into magic rattles.

[1] Grubb (1), p. 75, and fig. a on plate following p. 76.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

as graters. On the coast of Ecuador (J) they have found grating-boards (?) of baked clay with stones fastened in the clay[1]).

It is of great interest to see that in N.E. Bolivia we only find the most primitive form of manioc grating-boards.

b) Cooking utensils.

The Ashluslay and the Choroti cook their food in simple pots of baked clay. Of the tribes I have visited in my travels, the Cháma and Tambopata-Guarayo Indians are the only ones that have no clay vessels. For the rest, very few S. American tribes have no cooking utensils of baked clay. They are the Botocudo and some other Gê's tribes, the tribes of Tierra del Fuego, and now also the Patagonians.

c) Wooden spits.

(See Chapter XIII).

d) Platter, etc.

The (1) Choroti and (2) Ashluslay eat off dishes of baked clay, or off calabash shells. The former, and probably also the latter, have wooden platters as well. The Ashluslay also have large wooden basins.

I have seen wooden bowl (Map 12) among the following tribes in addition to those named: (19) Aymara, (18) Quichua, (5) Chané (4) Chiriguano (6) Mataco, (22) Yuracáre, (23) Churápa and (89) among Indians on the Calilegua, Argentina.

They are also known from the (18) Quichua, Papallacta in Ecuador[2]) (10) Araucanians,[3]) (16) Guató[4]) (49) Araona[5]) (36) Ijca[6]) and the (68) Omagua (?)[7]).

[1]) Joyce, Pl. 6. fig. 2.
[2]) Uhle (1) Vol. 2. Pl. 17. fig. 18—19.
[3]) Latcham (1) p. 342.
[4]) Max Schmidt (3) p. 211.
[5]) Armentia p. 60.
[6]) Bolinder (4) p. 59.
[7]) M. f. V. L. (S. Am. 1350).

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

Archaeological excavations have brought to light wooden bowles in the (D) Puna de Jujuy[1]) and on (A) the coast of Peru[2])

To judge from the distribution, the wooden bowl is a cultural element that the Chaco Indians received from the mountain civilization. The archaelogical finds of wooden bowls in N. Argentina show that they were used there in pre-Columbian times.

Fig. 20. Wooden dish, Choroti. G. M. (W. 634) 1/6.

Fig. 21. Wooden bowl. Quichua-Mestizos. Calilegua, N. Argentina. R. M. (u. 24) 1/4

The shape of the little handles on the wooden dishes of the Choroti Indians are very similar to those on the bowls of the Quichua-Mestizos in N. Argentina (Figs 20. 21).

e) *Eating utensils.*

The (1) Choroti and (2) Ashluslay have spoons of wood (Map 13) and horn. As eating utensils they also use mussel-shells and calabashes.

Besides the above-named tribes, I have seen the following tribes in the course of my travels who used wooden

[1]) Lehmann-Nitsche (1), Pl. 5. E. 12.
[2]) Putnam, Pl. 26. fig. 6 and 7.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

Catamarca[1]) at (E) Amaicha, Tucuman[2]) in (c) the Puna de Atacama[3]) in (F) San Juan[4]) in Argentine, and in the (G) Ollachea valley, Peru.[5]).

As far as one can judge, the wooden spoon is pre-Columbian in the Chaco. But evidently some forms of it, which are found among tribes that have had much do to with white men, were carved under the influence of the metal spoon which the Indians acquired from the whites (Fig. 25, D.-G.). Still we must not forget that a tribe now carves its wooden spoons on the model of spoons it has acquired from the whites, and yet may have known the spoon at a time when its culture was not influenced by them.

Fig. 22. Wooden spoons from old graves. Rio San Juan del Mayo in Puna de Jujuy (After LEHMANN-NITSCHE.)

It is therefore very hard to decide where the spoon is a purely Indian cultural element. But that in the main the spoon is a westerly cultural element, is clear. The spoons found among the Choroti and Ashluslay are exactly like the spoons that have been found in old graves in N.W. Argentine, and in consideration of this, as well as of the distribution of the spoon in general, one has every right to assume that this cultural element is derived from the mountain culture. The spoons

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[1]) BRUCH (2) fig. 23.
[2]) AMBROSETTI (2) fig. 249.
[3]) BOMAN, p. 759. AMBROSETTI (4), Pl. 3. fig. 39—41
[4]) DEBENEDETTI (4) p. 78. fig. 62.
[5]) NORDENSKIÖLD (3), p. 32.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

A C 415

found in old graves, as well as the spoons of the Choroti and Ashluslay Indians have a straight handle and a more or less circular bowl (figs. 22 and 24 A, B. C).

The *horn spoon* must be post-Columbian, the material being new.

The *shell spoon* is very widely distributed. It is probably in universal use wherever suitable material is to be found. This is also true of the *calabash spoon*.

Fig. 23. Eating-brush of Caraguata. Ashluslay G. M. (A 1417).

A really original eating utensil is the *eating-brush* (fig. 23). I have seen them in common use among the Ashluslay. They are also known from the Guayaki Indians in Paraguay[1] [2] In the Chaco they are used for eating honey.

The *wooden knife* used for eating water-melons[3] I have seen exclusively in the Chaco.

[1] Kunike.

[2] Roquette-Pinto (2) (p. 195) also mentions them from the »sertanejos meladores« in Matto Grosso.

[3] See »Indianerleben«, fig. 18.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6

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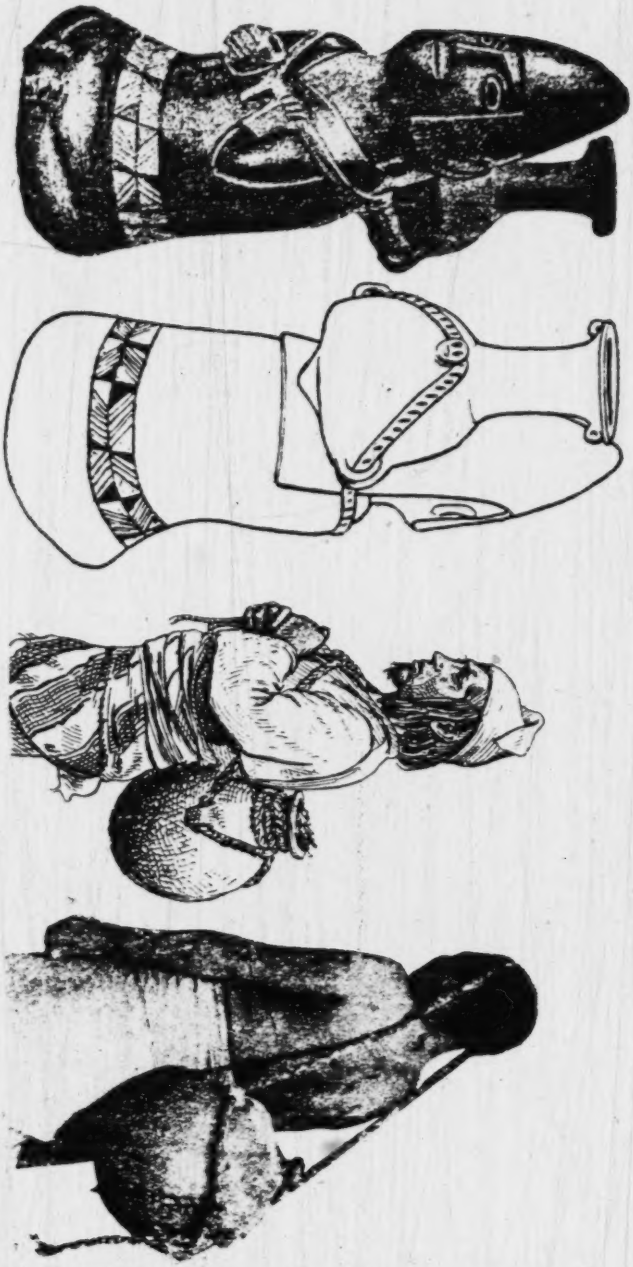

[p. 142]

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

since it is used by most of the Gês-tribes who live in tracts where there is abundance of material for basket-making. The supposition that the use of carrying-nets among these tribes is due to the difficulty of finding suitable wicker is thus precluded.

The carrying-net is in use among the following tribes as well as those indicated in the table on p. 144: (45) Botokuds[1]), (27) Ona[2]), (67) Suya[3]), (28) Bakaïrí[4]), (28) Mehinakú[4]), and (28) Auetö[4]), (11) Chamacoco[4]), (8) Lengua[5]), (12) Mbayá[6]), (36), Ijca[7]), (10) Araucanians[8]), and (03) Tapuya[9]). The (E) Diaguita[10]) seem formerly to have made use of carrying-nets; UHLE[11]) found carrying-nets in the very old excavations at (B) Arica.

In all probability various nets found on the coast of (A) Peru are also carrying-nets. In the Linden Museum at Stuttgart there are nets of this kind from Valle de Chancay. One of these, made of fine string, is 125 centimetres long and 30 centimetres broad (when stretched)[12]).

The waterpots are borne by the Choroti, Ashluslay, Mataco, Toba[13]), Tapiete, Lengua[14]), and Mbayá[15]) in the Chaco in a very characteristic manner (Fig. 45). Around the pitcher, which is indented at the middle and has two ears, there runs a cord. This is fixed by the woman who carries the pitcher

1) v. IHERING (2), Pl. 4, Fig. 7. WIED, Vol. I, Pl. 14.
2) GALLARDO, p. 285 Very simple form.
3) v. D. STEINEN (1), p. 194.
4) RADIN, p. 928.
5) GRUBB, p. 95.
6) SÁNCHEZ LABRADOR Vol. 1, p. 271.
7) G. M. BOLINDER.
8) MASON, p. 535.
9) FRESCAROLO, p. 114.
10) AMBROSETTI (2), p. 449; QUIROGA, fig. 7.
11) (7), p. 30.
12) According to letter received from KOCH-GRÜNBERG.
13) Also the Toba on the lower Rio Pilcomayo. DUCCI, p. 8.
14) GRUBB, Fig. p. 99.
15) SÁNCHEZ LABRADOR, Vol. 1, p. 291.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

XXII.

Holders for Various Articles.

On entering a Choroti or Ashluslay hut, one finds lying on the floor, or else hanging in the hut, large and small bags knitted of Caraguatá. In these bags which, as has been mentioned, are used on journeys for carrying articles in, these Indians keep their goods and chattels. Besides these bags they have also pouches of ostrich-skin, wild pig-skin, and ostrich-necks. Small articles are usually kept in small pouches and bags placed inside larger ones for preservation. Ornamental feathers are usually kept by these Indians in sections of reeds.

The Mataco, Toba, and Tapiete Indians preserve their property in like manner. All is preserved in such wise that it can be collected in a short time when they desire to set out on a journey or escape with all their goods and chattles.

As most writers say nothing as to how the Indians preserve their private property, I will here content myself with drawing a comparison between the tribes I have got to know personally. The following tables indicate the commonest manner of preservation.

Ashluslay. — Caraguatá bags, pouches of leather, sections of reeds.

Atsalnaca. — Baskets.

Aymara, — Sacks and satchels of cloth, niches in the hut, storehouses.

Cavina. — Baskets, satchels of bought cloth, storehouses.

000 Chacobo. — Baskets, storehouses.

Cháma. — Baskets.

Chané. — Earthenware vessels, hooks in the ceiling, storehouses.

Chimane. — Baskets, shelves, cloth bags.

Chiriguano. — Earthenware vessels, hanging on the roof of the hut, hooks in the ceiling, storehouses.

[415] Choroti. — Caraguatá bags, pouches of leather, sections of reeds.

Guarayú (Pauserna). — Baskets, in leaves.

Huanyam. — Baskets, leathern bags, bast holders.

Huari. — Hanging in the hut, stuck into the walls of the hut.

Mataco. — Caraguatá bags, shelves, leather pouches, sections of reeds, storehouses.

Quichua. — Sacks and pouches of cloth, niches in the hut, storehouses.

Siriono. — Baskets.

Tambopata-Guarayo. — Baskets.

Tapiete. — Caraguatá bags, leather pouches, sections of reeds.

Toba. — Caraguatá bags, leather pouches, sections of reeds

Tsirakua. — Caraguatá bags, leather pouches, sections of reeds.

Yamiaca. — Baskets.

Yuracáre. — Baskets, pouches of bast, and bought cloth.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

A C 321 401

The Choroti and Ashluslay understand how to bore through teeth and mussel-shells. For this purpose they now use drills, made of darning-needles provided with a handle, which they obtain from the whites. The art of drilling holes in bone must be very ancient in S. America, being certainly known to every Indian tribe. The Tierra del Fuegians, however, seem not to possess necklaces of drilled teeth.

The carving and ornamentation of calabashes.

A C 415 322

Calabashes are extensively used in the whole of tropical S. America. They are lacking only in the extreme south of the continent and among some Gês-tribes who are quite uncivilized. Even up on the Andes the Indians often have calabashes which they get from the valleys on the eastern slopes of these mountains. Calabashes have been found in old excavations in the Puna de Jujuy[1]) where they cannot be cultivated. During his archaeological excavations at Calama in Puna de Atacama UHLE[2]) found numerous calabashes. He believes that the Indians there received them from Argentina.

The Choroti and Ashluslay have no tree calabashes, but use the fruit of a cucurbitaceæ which they cultivate. From these they make boxes, large bowls, etc.

Fig. 67. Calabash box with lid. R. M. (A. 1304). 1/4.

They often provide these boxes with lids which are not infrequently carved in the shape of a star. They are made in the manner described by SÁNCHEZ LABRADOR[3]), speaking of

[1]) LEHMAN-NITSCHE (1).
[2]) (5), p. 109.
[3]) Vol. 1, p. 271.

[text continues on p. 224]

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
.Ashluslay SK5

A C 415 322

the Mbayá:— «Labran una especie de calabazos grandes sacandoles con delicadeza un pedazo por el pezon que despues ajusta como tapa». — e. g. *the lid and the calabash-box are always from one and the same fruit.*

A C [531]

The calabashes are frequently ornamented, sometimes by burning, sometimes by cutting. Should a large calabash crack, the Choroti and Ashluslay generally mend it by sewing together the edges. (See Fig. 68).

Calabashes with lids of this kind (Fig. 67) are found among the (18) Quichua[1]), (4) Chiriguano[2]), (6) Matacos[3]).

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(X 4) Payaguá[4]), (12) Mbayá[5]), Kadiuéo), (8) Lengua[6]), (8) Angaité[7]), (21) Cainguá[8]), and (36) Ijca[9]) as well as the (2) Ashluslay and (1) Choroti.

Furthermore, calabashes with similar lids (Map 42) are mentioned from excavations in (D) ? the Puna de Jujuy[10]), from (A) the coast of Peru[11]), from (γ) the neighbourhood of Cuzco[12]), and from (G) Capamitas in the borderland of Peru and Bolivia[13]). We see that the distribution in S. America of lids of the kind here described is in the west Plainly we have to do with a cultural element which the Chaco Indians have derived from the western area of civilization

Calabashes with lids of a rather different type are mentioned by KRAUSE from the (15) Kayapó[14]), by Kissenberth[15])

[1]) G. M. 15. 1. 87.
[2]) G. M. 15. 1. 144.
[3]) R. M. (M. 1251).
[4]) M. C. (He. 316, H. 322 a. H. 923.)
[5]) BOGGIANI (2), Fig. 50.
[6]) GRUBB, p. 74.
[7]) M. f. V. C. (17034, Collection FRIČ.)
[8]) M. f. V. C. (613 i).
[9]) G. M. BOLINDER.
[10]) LEHMANN-NITSCHE (1), Pl. 3, Fig. 4.
[11]) REISS und STÜBEL, Vol. 3, P. 82, fig. 4.
[12]) M. f. V. B. (V. A. 8900).
[13]) NORDENSKIOLD, (3), S. 24. R. M. (06. I. 408.)
[14]) Fig. 215.
[15]) (1), fig. 1.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

from the (5X) Canella, and KOCH-GRÜNBERG[13]) from the (48) Yahúna, Rio Apaporis.

Calabashes with encáustic ornamentation (Map 43) are rare among the Ashluslay, somewhat more common among the Choroti, and very common among the Mataco. They are found among the Toba and, very generally, among the Chiriguano and Chané. They are quite wanting in the tribes I visited in N.E. Bolivia and the adjacent country, although some of these tribes, e. g. the Guarayú (Pauserna) have got richly ornamented calabashes.

Calabashes with encaustic ornamentation are also known from the (14) Bororó[2]), (20) Paressi-Kabíši[3]), (28) Bakaïrí[4]) and other tribes on the upper Rio Xingú, (13) Karajá and (50) Šavajé[5]) (21) Cainguá[6]), (29) Caingáng[7]), (41) Šokleng[8]), the Indians of (09) Chachapoya[9]), Peru, (47) Araeuna[10]), (47) Makusi and Wapischana[11]), the Indians on the Rio Pichis, Rio Ucayali[12]) (33) Campa[13]), (48) Tarianá[14]), and (48) Arapaso[15]) (on the Cairáy Uaupés).

In Peru, Argentina and Chile calabashes graven by fire have been frequently discovered, e. g. at (B) Arica[16]), (A)

[1]) (2), Vol. 2, fig. 107.
[2]) M. f. V. C. (17089). Fric Collection.
[3]) MAX SCHMIDT (4), p. 343.
[4]) MAX SCHMIDT (4), fig. 227-230.
[5]) KRAUSE, p. 280; M. f. V. [illegible].
[6]) M. C. (Hc. 05[illegible]).
[7]) M. C. (Hc. 012).
[8]) M. f. V. B. (V. B. 4172).
[9]) UHLE (1), Vol. 2, Pl. 4, fig. 11.
[10]) M. f. V. B. (V. A. 01234).
[11]) M. f. V. B. (II. 17:57-58; II. 17:29).
[12]) M. f. V. B. (V. A. 10882). (not marked on the map).
[13]) M. f. V. B. (V. A. 10883).
[14]) M. f. V. B. (V. B. 05000).
[15]) M. f. V. B. (V. B. 5935).
[16]) UHLE (1), Vol. 1. Pl. 25, fig. 19.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

Ancon [1]), (K) Trujillo [2]), (y) Cuzco (Paucartambo [3]), (G) Quiaca [4]), (C) Calama [5]), (E) La Paya [6]) and in (F) San Juan [7]).

In some parts the Indians may have learnt the encaustic ornamentation of calabashes from whites and negroes. It is evident, however, that this kind of ornamentation *mainly occurs in the west of S. America*, and I deem it in the highest degree probable that the Chaco Indians took over the art of pyrograving from the western area of culture.

The question arises whether this process of ornamentation did not originate in a district where the people had at their disposal metal implements by means of which figures might easily be burnt into wood or similar material.

Among the Choroti and Ashluslay in the Chaco pyrograving is performed on whistles and cases, as well as on reed flutes.

Calabashes with engraved ornamentation are distributed over a very wide area. I will only mention here the tribes among whom I have myself seen them:— viz. the Choroti, Ashluslay, Mataco, Toba, Tapiete, Tsirakua, Chiriguano, Chané, Churápa, and Yuracáre.

The calabashes of the Choroti and Ashluslay Indians are never painted, nor are they blackened inside, like the calabashes of the Guarayú and many other tribes.

As regards the ornamentation itself, I do not venture to assign any particular quarter as its source. It may possibly be an imitation of the ornaments on the calabashes of more civilized tribes. I am not able, however, to adduce any proof of this.

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[1]) Reiss und Stübel, Vol. 3, Pl. 82.
[2]) M. C. (O. D. I. c. 249).
[3]) M. f. V. B. (V. A. 80000)
[4]) Nordenskiöld (3), p. 29, R. M. (00. 1. 434).
[5]) Uhle (5), p. 109.
[6]) Ambrosetti (6), p. 523.
[7]) Debenedetti (4), p. 64, fig. 35.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay

When a small crack appears on a large and valuable calabash, the (1) Choroti and (2) Ashluslay, as was mentioned, mend it by sewing the edges together. Calabashes sewn together in like manner (Map 44) are also found among the (6) Mataco, (4) Chiriguano, (22) Yuracáre[1]) and the (28) Indians on the Rio Xingú[2]). On the other hand, I have never seen mended calabashes among any of the tribes I visited in N. E. Bolivia.

The National Museum at Stockholm possesses a calabash from the excavation field at (A) Ancon[3]) on the Peruvian coast which has been mended by sewing together the

Fig. 68. Piece of a calabash mended by sewing. Mataco. R. M. (M. 170). 1/4.

sundered edges. There is another in the Gothenburg Museum from the (36) Ijca in Columbia[4]). Probably the sewing together of calabashes is an idea obtained by the Chaco Indians from the mountain civilization. In the Chaco it is the large calabashes, hard to replace, which are thus mended. Of the mended calabashes I collected from the Chiriguano there are, characteristically enough, tree calabashes which do not grow in their country, but are imported from the Sta Cruz district. The idea of mending calabashes must certainly have arisen in a tract where calabashes either were not cultivated at all or, if cultivated, only with difficulty,

[1]) Not marked on the map.
[2]) K. v. d. Steinen (3), p. 241.
[3]) Stolpe's collection. (R. M. 21, 150).
[4]) G. M. Bolinder's collection.

/377/

Wooden Bowls and Basins

C 415 171 439

The Chiriguano also use wooden bowls (Fig. 49). I do not know whether they make them themselves or receive them from the half-breeds of the /Fig. 48 appears here/ San Luis region. In this latter case the Chiriguano of the San Luis (Entre-Rios) region would be the only ones to make them. In Tarija /Figs. 49-50 appear here / where these bowls are much sought after by the half-breeds, they were indicated to me as coming from that zone. The rare wooden bowls which /378/ I saw at Caipipendí had been bought by the Chiriguano in the course of their trips. The same origin must be attributed to the wooden troughs found among the Chiriguano who live near the Quichua half-breeds of Tarija department. These basins are used for washing food and also as bathtubs. The Choroti have wooden dishes (Nordenskiöld, 9, Fig. 20, p. 88) which have a shape very similar to that of the trough reproduced here (Fig. 50) and which doubtless were introduced among them either by the ancient Quichua or by the half-breeds. Among the Araucan of Argentina wooden basins are found, which are similar in every detail to those of the Indians and half-breeds of Bolivia and the specimen pictured here.

Ci 415 177

A 415 171

Chapter V

Tools of the Chiriguano

C 412 178 [179]

The work tools the Chiriguano use nowadays are almost all of European manufacture. Here and there the ancient forms were kept when stone or bone were replaced by iron. Witness the adze of Plate XXII /see p. 143 / which constitutes a curious survival of the eared or T-shaped ax certainly adopted by the Chiriguano after their migration and their establishment at the foot of the Andes. This type of ax is unknown to me from any other Tupi-Guarani tribe and is rare in the area occupied by the different nations belonging to this linguistic family (see Rivet, 1, pp. 149-155).

T-G [412 184]

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

273
415
361

Preparations being made for the great drinking-feast among the Choroti. A goat's hide is fixed in the ground so as to form a vessel, in which the beer is brewed.

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Choroti Indians assembled for a drinking-feast under a shady algaroba tree.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI12
Choroti SK6

M I C 273 462 415

We have already seen that the most appreciated of these drinks is algaroba beer, which by the Mataco and the Choroti is called *atās*, by the Tobas again *maplyi*. The tree itself and its fruit is called *oáh* in the Mataco and the Choroti language, in the Toba language *map*. The sacred beer is prepared with the utmost care and with certain religious or magical ceremonies. At this preparation there appears a strict division of labour between men and women. Although the women are not allowed to drink of the beer, they seemingly perform the larger part of the work. They collect the fruit in the forest, carrying it home in their large caraguatá bags, and afterwards mash it in mortars. Some old women start to chew the fruit, mixing it well with saliva, whereupon they spit it out into a goat's hide, fixed in the ground by means of sticks in such a way that it forms a sort of vessel. The goat's hide is used by the Choroti and by the Argentine Mataco, whereas the Tobas and the Bolivian Mataco use a wooden trough for the purpose. Lastly, hot water is poured over the mashed fruit.

M I C 273 [462]

These preparations require nearly a whole day. The most essential thing still remains, namely the fermentation, and to effect this is a duty solely incumbent on the men, since women as a rule do not take part in conjurations. The fermentation is sacred, because it means the birth of the good spirit. Now this happens in the night, but night is the time when evil spirits move about. According to the belief of the Indians, the invisible persecutors appear in great numbers in order to prevent the birth of the good spirit and interfere with the drink so that it cannot ferment and is entirely spoiled. Therefore special precautions must be taken for the critical time. The brewing of the algaroba beer for the great festivals during the algaroba season is — especially among the primitive Choroti — a matter that concerns the whole community. Hence, at the approach of night, the men arrive from all houses with their rattle gourds, sit round the hide or trough, and begin to chant a noisy, monotonous song without words, shaking the rattles in the rhythm of their chant. This ceremony is called by the Choroti *nissammaha oáh*, by the Tobas *niapilák map*, and its most conspicuous object is to prevent the spirits from spoiling the beer. Since the new moon is believed to promote fermentation, a moonlight night is preferably chosen for the ceremony. The chant is typical of the Indian conjurations in the Chaco. It is always begun in a loud voice; then the voice gradually dies down, so that the last tones are only heard as a low and distant muttering. Thereupon they start again from the beginning, and so forth. In addi-

M T C [821]